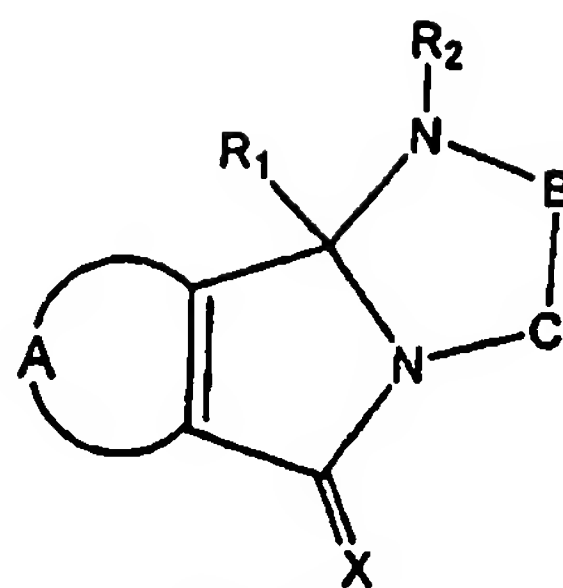


Claims:-

1. Use of a compound of formula I



Formula I

its salts, and pharmaceutically acceptable derivatives thereof, in the treatment of infections involving viruses of the *Pneumovirinae* sub-family, wherein

A together with the atoms to which it is attached, forms an optionally substituted aromatic ring;

linker B-C together with the atoms to which they are attached, forms an optionally substituted heterocyclic ring having from 5 to 8 ring atoms;

R_1 is selected from C_{1-12} alkyl, C_{2-12} alkenyl, C_{2-12} alkynyl, $-(CH_2)_n C_{3-7}$ cycloalkyl, $-(CH_2)_n C_{4-7}$ cycloalkenyl, $-(CH_2)_n$ aryl, $-(CH_2)_n$ aryl C_{1-12} alkyl, $-(CH_2)_n$ aryl C_{2-12} alkenyl, $-(CH_2)_n$ aryl C_{2-12} alkynyl, and $-(CH_2)_n$ heterocyclyl; n is 0-6 and the alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl groups are optionally substituted;

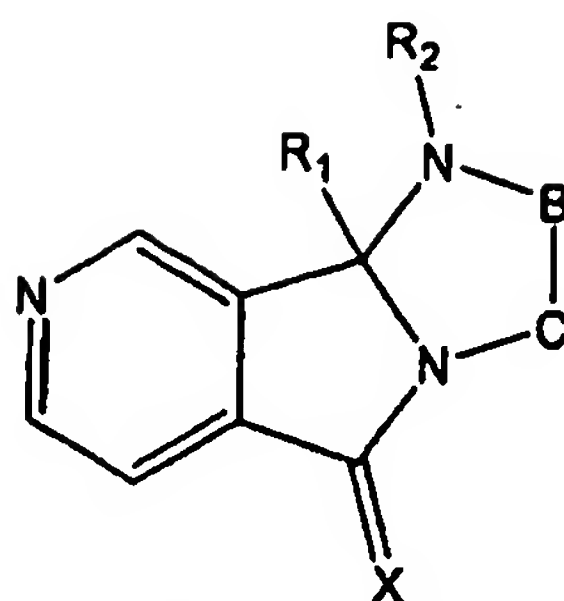
R_2 is selected from $-CH_2R_3$, $-C(Y)R_3$, $-C(Y)OR_3$, $-C(Y)N(R_4)R_3$, $-C(Y)CH_2N(R_4)R_3$, $-C(Y)CH_2SR_3$ and $-S(O)_wR_5$, where R_3 is selected from hydrogen, C_{1-12} alkyl, C_{2-12} alkenyl, C_{2-12} alkynyl, $-(CH_2)_m C_{3-7}$ cycloalkyl, $-(CH_2)_m C_{4-7}$ cycloalkenyl, $-(CH_2)_m$ aryl, $-(CH_2)_m$ aryl C_{1-12} alkyl, $-(CH_2)_m$ aryl C_{2-12} alkenyl, $-(CH_2)_m$ aryl C_{2-12} alkynyl and $-(CH_2)_m$ heterocyclyl; and when R_2 is $-CH_2R_3$, or $-C(Y)R_3$, R_3 may also be selected from $-S-R_5$ and $-O-R_5$; m is 0-6; R_4 is hydrogen or C_{1-6} alkyl; R_5 is C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, benzyl, aryl or heterocyclyl; w is 0, 1 or 2, and the alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl groups are optionally substituted;

X and Y are independently selected from O, S and NR_6 , where R_6 is independently selected from hydrogen, lower alkyl, hydroxy and lower alkoxy.

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2. Use as defined in claim 1 wherein R_2 is not an unsubstituted $-C_{1-6}$ alkyl or unsubstituted $-C(O)-C_{1-6}$ alkyl.
- 5 3. Use as defined in claim 1 wherein ring A is an optionally substituted aryl ring.
4. Use as defined in claim 1 wherein ring A is an optionally substituted phenyl ring.
- 10 5. Use as defined in claim 1 wherein ring A is an optionally substituted heteroaryl ring.
- 15 6. Use as defined in claim 1 wherein ring A together with the atoms to which it is attached, represents an optionally substituted pyridyl, pyridazinyl, pyrimidinyl, pyrazinyl, pyrrolyl, furyl, thienyl, imidazolyl, oxazolyl or isoxazolyl ring.
- 20 7. Use as defined in claim 1 wherein ring A is an optionally substituted pyridyl, pyridazinyl, pyrimidinyl or pyrazinyl ring.
- 25 8. Use as defined in claim 1 wherein ring A is optionally substituted pyridyl ring.
9. Use as defined in claim 1 wherein ring A is optionally substituted with one or more substituents independently selected from halo, $-NH_2$, NO_2 , C_{1-6} alkyl, aryl and heterocyclyl, the aryl and heterocyclyl groups optionally substituted with halo, C_{1-6} alkyl or halo substituted C_{1-6} alkyl and, when ring A contains one or more ring nitrogens, the optional substituents include N-oxides of one or more of the ring nitrogens and pyridinium salts thereof.
- 30 10. Use as defined in claim 1 wherein ring A is optionally substituted with a substituent selected from halo, alkyl, C_6H_5- , $CH_3-C_6H_4-$, $CF_3-C_6H_4-$, pyridyl, NO_2 and when ring A contains one or more ring nitrogens, the optional substituent also include an N-oxide form of a ring nitrogen, and pyridinium salts thereof.
11. Use as defined in claim 1 wherein ring A is not substituted.
- 35 12. Use as defined in claim 1 of a compound of the formula IV

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Formula IV

its salts, N-oxides and pharmaceutically acceptable derivatives thereof, wherein B-C, X,
 5 R₁ and R₂ are as defined in claim 1.

13. Use as defined in any one of claims 1 to 12, wherein R₂ is selected from -CH₂R₃,
 -C(Y)R₃, -C(Y)OR₃, -C(Y)N(R₄)R₃, -C(Y)CH₂N(R₄)R₃, -C(Y)CH₂SR₃ and -S(O)_wR₅,
 where R₃ is selected from hydrogen, -C₁₋₁₂alkyl, -C₂₋₁₂alkenyl, -C₂₋₁₂alkynyl, -(CH₂)_mC₃₋₇
 10 cycloalkyl, -(CH₂)_mC₄₋₇ cycloalkenyl, -(CH₂)_maryl, -(CH₂)_marylC₁₋₁₂ alkyl,
 -(CH₂)_marylC₂₋₁₂alkenyl, -(CH₂)_marylC₂₋₁₂ alkynyl, -(CH₂)_mheterocyclyl, and when R₂ is
 -CH₂R₃, or -C(Y)R₃, R₃ may also be selected from -S-R₅ and -O-R₅; m is 0-6, R₄ is
 hydrogen or is C₁₋₆ alkyl, R₅ is selected from C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₃₋₇
 15 cycloalkyl, C₄₋₇ cycloalkenyl, benzyl, aryl and heterocyclyl; w is 0, 1 or 2, and the alkyl,
 alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl groups are optionally
 substituted with one or more substituents selected from C₁₋₆ alkyl, C₁₋₆ alkoxy, C₂₋₆
 alkenyl, C₂₋₆ alkynyl, halo, halo-C₁₋₆ alkyl (including CF₃), hydroxy, mercapto, nitro,
 cyano, NH₂, mono or di(C₁₋₆alkyl) amino, phenyl, benzyl and heterocyclyl.

20 14. Use as defined in claim 1 wherein R₂ is -CH₂-R₃, and R₃ is -(CH₂)_maryl or -(CH₂)_m
 heterocyclyl and m is 0 to 3 and the aryl or heterocyclyl ring is optionally substituted.

25 15. Use as defined in claim 1 wherein R₂ is -COR₃ and R₃ is aryl or heterocyclyl and is
 optionally substituted.

30 16. Use as defined in claim 14 or 15 wherein R₃ is optionally substituted phenyl,
 naphthyl, furyl, thienyl, pyrrolyl, H-pyrrolyl, pyrrolinyl, pyrrolidinyl, oxazolyl,
 oxadiazolyl, (including 1,2,3 and 1,2,4 oxadiazolyls) thiazolyl, isoxazolyl, furazanyl,
 isothiazolyl, pyrazolyl, pyrazolinyl, pyrazolidinyl, imidazolyl, imidazolinyl, triazolyl
 (including 1,2,3 and 1,3,4 triazolyls), tetrazolyl, thiadiazolyl (including 1,2,3 and 1,3,4
 thiadiazolyls), pyridyl, pyrimidinyl, pyridazinyl, pyranyl, pyrazinyl, piperidinyl, 1,4-
 dioxanyl, morpholinyl, 1,4-dithianyl, thiomorpholinyl, piperazinyl, 1,3,5-trithianyl,
 triazinyl, 1H thieno[2,3-c]pyrazolyl, thieno[2,3-b]furyl, indolyl, isoindolyl, benzofuranyl,
 benzothenyl, benzoxazolyl, benzothiazolyl, benzisoxazolyl, benzisothiazolyl,

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benzimidazolyl, indazolyl, isoquinolinyl, quinolinyl, quinoxalinyl, uridiny, puriny, cinnolinyl, phthalazinyl, quinazolinyl, quinoxalinyl, benzotriazinyl, naphthyridinyl or pteridinyl.

- 5 17. Use as defined in claim 16, wherein R_3 is optionally substituted with one or more substituents selected from C_{1-6} alkyl, C_{1-6} alkoxy, C_{2-6} alkenyl, C_{2-6} alkynyl, halo, halo- C_{1-6} alkyl (including CF_3), hydroxy, mercapto, nitro, cyano, NH_2 , mono or di(C_{1-6} alkyl) amino, phenyl, benzyl and heterocyclyl.
- 10 18. Use as defined in claim 1 wherein R_2 is $-CON(H)R_3$, and R_3 is $-(CH_2)_m$ aryl or $-(CH_2)_m$ heteroaryl and m is 0 to 2 and the aryl or heteroaryl ring is optionally substituted with one or more substituents independently selected from halo, lower alkyl, hydroxy, lower alkoxy and phenyl.
- 15 19. Use as defined in claim 1 wherein link $-B-C-$ is an optionally substituted link of the formula $-CH_2-(CH_2)_z-$, where z is 1-4.
20. Use as defined in claim 19 wherein z is 1 or 2.
- 20 21. Use as defined in claim 1 wherein $-B-C-$ is a linker of the formula $-CH_2CH_2-$.
22. Use as defined in claim 1 wherein linker $-B-C-$ is optionally substituted no more than three optional substituents, the substituents selected from halo, lower alkyl, hydroxy, lower alkoxy, phenyl and benzyl.
- 25 23. Use as defined in claim 1 wherein linker $-B-C-$ is not substituted.
24. Use as defined in any one of claims 1 to 21 wherein X is oxygen or sulphur.
- 30 25. Use as defined in claim 1 wherein R_1 is an optionally substituted aryl or heterocyclyl group.
26. Use as defined in claim 1 wherein R_1 represents phenyl, thienyl, pyrrolyl, pyridyl ring or a $-C_{1-6}$ alkylphenyl group, the rings being optional substituted with halo, hydroxy, nitro, $-NR'R''$ (where R' and R'' are independently selected from hydrogen, lower alkyl and $-C(O)R$, where R is C_{1-6} alkyl, phenyl or heterocyclyl), C_{1-12} alkyl, phenyl and $-O-R_a$, where R_a is $-C_{1-12}$ alkyl, $-C_{3-7}$ cycloalkyl, $-C_{1-12}$ alkyl C_{3-7} cycloalkyl, phenyl or $-C_{1-12}$ alkylphenyl; and the C_{1-12} alkyl, phenyl or R_a group may be optionally substituted with halo, $-CN$, $-NR'R''$, $-CO_2R$ or $-CONR'R''$, where R , R' and R'' are independently selected from hydrogen or lower alkyl.
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27. Use as defined in claim 1 wherein R₁ is phenyl optionally substituted with a substituent selected from halo, -C₁₋₆alkyl, -C₁₋₆alkylhalo, -C₁₋₆alkylCN, -OC₁₋₆alkyl, -OC₁₋₆alkylhalo, -OC₁₋₆alkylCO₂NH₂, -OC₁₋₆alkylCN, -OC₁₋₆alkylC₃₋₇cycloalkyl, -OC₁₋₆alkylC₆H₅, -OC₁₋₆alkylOCH₃, -OC₆H₅, -OC₆H₄halo, -CF₃, -OCF₃, -NR'R'' (where R' and R'' are independently selected from hydrogen, -C(O)C₁₋₆alkyl, -C(O)C₆H₅, -C(O)CH=CHCO₂H, -C(O)C₁₋₆alkylCO₂H, -C(O)C₁₋₆alkylCO₂CH₃, -C(O)C₁₋₆alkylC₆H₅, -C(O)C₁₋₆alkylC₆H₄CH₃, -C(O)C₁₋₆alkylC₆H₄OCH₃ and -C(O)C₁₋₆alkylC₆H₄halo), -CO₂H, -CO₂C₁₋₆alkyl, -NO₂, -OH, -C₆H₅, -C₆H₄C₁₋₆alkyl, -C₆H₄halo and -OC(O)C₁₋₆alkyl.
28. Use as defined in claim 1 wherein R₁ is phenyl substituted with halo, -OC₁₋₆alkyl, -OC₁₋₆alkylhalo, -OC₁₋₆alkylCO₂NH₂, -OC₁₋₆alkylCN, -OC₁₋₆alkylC₃₋₇cycloalkyl, -OC₁₋₆alkylC₆H₅ or -OC₁₋₆alkylOCH₃.
29. Use as defined in claim 1 wherein R₁ is 4-chlorophenyl.
30. A method for the treatment of infections involving viruses of the *Pneumovirinae* sub-family by the inhibition of the virus's fusion processes by the administration of a therapeutically effective amount of a compound of formula I as defined in any one of claims 1 to 29, the salt or pharmaceutically acceptable derivatives thereof to a patient in need to treatment.
31. A pharmaceutical formulation for the treatment of infections involving viruses of the *Pneumovirinae* sub-family comprising a compound of formula I as defined in any one of claims 1 to 29, the salt or pharmaceutically acceptable derivatives thereof.
32. Use of a compound of formula I as defined in any one of claims 1 to 29, the salt or pharmaceutically acceptable derivatives thereof in the manufacture of a medicament for the treatment of infections involving viruses of the *Pneumovirinae* sub-family.
33. A method for treating mammals infected with viruses of the *Pneumovirinae* sub-family, which comprises administering to the mammal a therapeutically effective amount of one or more of the compounds of formula I as defined in any one of claims 1 to 29, or pharmaceutically acceptable derivatives thereof.
34. A method for preventing the infection of mammals with viruses of the *Pneumovirinae* sub-family, which comprises administering to the mammal a therapeutically effective amount of one or more of the compounds of formula I as defined in any one of claims 1 to 29, or pharmaceutically acceptable derivatives thereof.

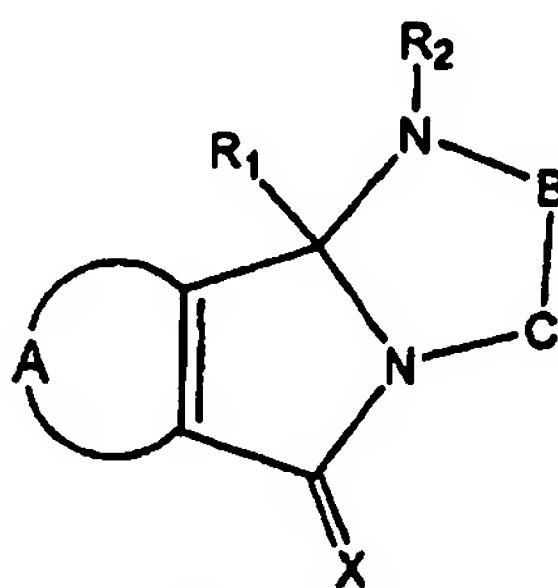
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35. The use or method according to any one of claims 1 to 34 in the treatment of infections involving viruses of the Pneumovirus and Metapneumovirus genus.

36. The use or method according to any one of claims 1 to 34 in the treatment of respiratory syncytial virus (RSV).

37. The use or method according to any one of claims 1 to 34 in the treatment of human RSV or human metapneumovirus.

38. A compound of formula I



Formula I

its salts, and pharmaceutically acceptable derivatives thereof, wherein

A together with the atoms to which it is attached, represents an optionally substituted phenyl, pyridyl, pyridazinyl, pyrimidinyl or pyrazinyl ring;

B-C is an optionally substituted link of the formula $-\text{CH}_2-(\text{CH}_2)_z-$, where z is 1-4;

R₁ is selected from C₁₋₁₂ alkyl, C₂₋₁₂ alkenyl, C₂₋₁₂ alkynyl, $-(\text{CH}_2)_n\text{C}_{3-7}$ cycloalkyl, $-(\text{CH}_2)_n\text{C}_{4-7}$ cycloalkenyl, $-(\text{CH}_2)_n$ aryl, $-(\text{CH}_2)_n$ arylC₁₋₁₂ alkyl, $-(\text{CH}_2)_n$ arylC₂₋₁₂ alkenyl, $-(\text{CH}_2)_n$ arylC₂₋₁₂ alkynyl, and $-(\text{CH}_2)_n$ heterocyclyl; n is 0-6 and the alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl groups are optionally substituted;

R₂ is selected from $-\text{CH}_2\text{R}_3$, $-\text{C}(\text{Y})\text{R}_3$, $-\text{C}(\text{Y})\text{OR}_3$, $-\text{C}(\text{Y})\text{N}(\text{R}_4)\text{R}_3$ and $-\text{S}(\text{O})_w\text{R}_5$, where R₃ is selected from hydrogen, C₁₋₁₂ alkyl, C₂₋₁₂ alkenyl, C₂₋₁₂ alkynyl, $-(\text{CH}_2)_m\text{C}_{3-7}$ cycloalkyl, $-(\text{CH}_2)_m\text{C}_{4-7}$ cycloalkenyl, $-(\text{CH}_2)_m$ aryl, $-(\text{CH}_2)_m$ arylC₁₋₁₂ alkyl, $-(\text{CH}_2)_m$ arylC₂₋₁₂ alkenyl, $-(\text{CH}_2)_m$ arylC₂₋₁₂ alkynyl and $-(\text{CH}_2)_m$ heterocyclyl; and when R₂ is $-\text{CH}_2\text{R}_3$, or $-\text{C}(\text{Y})\text{R}_3$, R₃ may also be selected from $-\text{S}-\text{R}_5$ and $-\text{O}-\text{R}_5$; m is 0-6; R₄ is hydrogen or C₁₋₆ alkyl; R₅ is C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₇ cycloalkyl, C₄₋₇ cycloalkenyl, benzyl, aryl or heterocyclyl; w is 0, 1 or 2, and the alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl groups are optionally substituted,

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X and Y are independently selected from O, S and NR_6 , where R_6 is independently selected from hydrogen, lower alkyl, hydroxy and lower alkoxy;

with the provisos that when A is phenyl and R_1 is 4-chlorophenyl or unsubstituted phenyl

- 5 (i) R_3 is not unsubstituted cyclopropyl, halomethyl, unsubstituted phenyl or phenyl with only halo, $-\text{CH}_3$ and/or $-\text{OCH}_3$ substituents when R_2 is COR_3 ;
- (ii) R_3 is not unsubstituted phenyl or phenyl with only halo, $-\text{CH}_3$, $-\text{OCH}_3$ and/or $-\text{C}(\text{O})\text{OCH}_2\text{CH}_3$ substituents when R_2 is $\text{C}(\text{O})\text{NHR}_3$;
- 10 (iii) R_3 is not unsubstituted phenyl or phenyl with only halo, $-\text{CH}_3$, $-\text{OCH}_3$ and/or $-\text{C}(\text{O})\text{OCH}_2\text{CH}_3$ substituents when R_2 is $\text{C}(\text{S})\text{NHR}_3$;

and with the provisos

- (iv) when A is phenyl and R_2 is CH_2R_3 , R_3 is not hydrogen, unsubstituted C_{1-6} alkyl or C_{1-6} alkyl only substituted with NH_2 , mono or di C_{1-6} alkyl amino groups;
- 15 (v) when A is phenyl and R_1 is 4-methoxyphenyl, R_2 is not CHO ;
- (vi) when A is phenyl and R_1 is phenyl optionally substituted with only halo, C_{1-6} alkyl and / or C_{1-6} alkoxy and R_2 is COR_3 , R_3 is not methylene substituted with NH_2 , mono or di C_{1-6} alkyl amino, N-piperidinyl or N-morpholinyl;
- 20 (vii) when A is phenyl and R_1 is 3- CH_3 , 4- $\text{CH}_3\text{CH}_2\text{CH}_2\text{NHC}(\text{O})\text{CH}_2\text{O}$ -phenyl, R_2 is not $-\text{S}(\text{O})_2\text{CH}_2\text{SO}_2\text{CH}_3$, $-\text{CHO}$, $-\text{COCH}_2\text{CH}_3$, $-\text{CH}_2\text{CH}_2\text{OH}$, $-\text{CH}_2\text{CH}_2\text{OCH}_3$, $-\text{CH}_2\text{CO}_2\text{C}(\text{CH}_3)_3$ or C_{1-6} alkyl;
- (viii) when A is pyridyl and R_1 is 3- CH_3 , 4- $\text{CH}_3\text{CH}_2\text{CH}_2\text{NHC}(\text{O})\text{CH}_2\text{O}$ -phenyl, R_2 is not CH_3 .

25 39. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, with the proviso that when ring A is phenyl

- (i) R_3 is not hydrogen or optionally substituted C_{1-6} alkyl when R_2 is $-\text{CH}_2\text{R}_3$ or $-\text{COR}_3$;
- 30 (ii) R_3 is not $(\text{CH}_2)_m$ heterocyclyl where m is 1 or 2 and the heterocyclyl ring is piperidinyl, morpholinyl, pyrrolidinyl, piperazinyl, thiomorpholinyl when R_2 is $-\text{COR}_3$ and R_1 is 4-chlorophenyl, 4-methoxyphenyl or unsubstituted phenyl;
- (iii) R_2 is not benzyl;

and with the proviso

- (iv) R_2 is not $-\text{CH}_3$ when A is pyridyl.

35

40. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, when A is phenyl and R_2 is $-\text{CH}_2\text{R}_3$ or $-\text{C}(\text{O})\text{R}_3$, and R_3 is selected from C_{7-12} alkyl, C_{2-12} alkenyl, C_{2-12} alkynyl, $-(\text{CH}_2)_m\text{C}_{3-7}$ cycloalkyl, $-(\text{CH}_2)_m\text{C}_{4-7}$ cycloalkenyl, $-(\text{CH}_2)_m$ aryl, $-(\text{CH}_2)_m$ aryl C_{1-12} alkyl, $-(\text{CH}_2)_m$ aryl C_{2-12} alkenyl, $-(\text{CH}_2)_m$ aryl C_{2-12} alkynyl, $-(\text{CH}_2)_m$ heterocyclyl, $-\text{SR}_5$ and $-\text{OR}_5$.

40

41. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein ring A is optionally substituted with one or more substituents independently selected from halo, -NH_2 , NO_2 , C_{1-6} alkyl, aryl and heterocyclyl, the aryl and heterocyclyl groups optionally substituted with halo, C_{1-6} alkyl or halo substituted C_{1-6} alkyl and, when ring A contains one or more ring nitrogens, the optional substituents include N-oxides of one or more of the ring nitrogens.
42. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein ring A is optionally substituted with a substituent selected from halo, alkyl, $\text{C}_6\text{H}_5\text{-CH}_3\text{-C}_6\text{H}_4\text{-}$, $\text{CF}_3\text{-C}_6\text{H}_4\text{-}$, pyridyl, NO_2 and when ring A contains one or more ring nitrogens, the optional substituent also include an N-oxide form of a ring nitrogen.
43. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein ring A is not substituted.
44. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R_2 is selected from $\text{-CH}_2\text{R}_3$, -C(Y)R_3 , -C(Y)OR_3 , $\text{-C(Y)N(R}_4\text{)R}_3$, $\text{-C(Y)CH}_2\text{N(R}_4\text{)R}_3$, $\text{-C(Y)CH}_2\text{SR}_3$ and $\text{-S(O)}_w\text{R}_5$, where R_3 is selected from hydrogen, -C_{1-12} alkyl, -C_{2-12} alkenyl, -C_{2-12} alkynyl, $\text{-(CH}_2\text{)}_m\text{C}_{3-7}$ cycloalkyl, $\text{-(CH}_2\text{)}_m\text{C}_{4-7}$ cycloalkenyl, $\text{-(CH}_2\text{)}_m$ aryl, $\text{-(CH}_2\text{)}_m$ aryl C_{1-12} alkyl, $\text{-(CH}_2\text{)}_m$ aryl C_{2-12} alkenyl, $\text{-(CH}_2\text{)}_m$ aryl C_{2-12} alkynyl, $\text{-(CH}_2\text{)}_m$ heterocyclyl, and when R_2 is $\text{-CH}_2\text{R}_3$, or -C(Y)R_3 , R_3 may also be selected from -SR_5 and -OR_5 ; m is 0-6, R_4 is hydrogen or is C_{1-6} alkyl, R_5 is selected from C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, benzyl, aryl and heterocyclyl; w is 0, 1 or 2, and the alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl groups are optionally substituted with one or more substituents selected from C_{1-6} alkyl, C_{1-6} alkoxy, C_{2-6} alkenyl, C_{2-6} alkynyl, halo, halo- C_{1-6} alkyl (including CF_3), hydroxy, mercapto, nitro, cyano, NH_2 , mono or di(C_{1-6} alkyl) amino, phenyl, benzyl and heterocyclyl, the substituents being optionally substituted.
45. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R_2 is $\text{-CH}_2\text{-R}_3$, and R_3 is $\text{-(CH}_2\text{)}_m$ aryl or $\text{-(CH}_2\text{)}_m$ heterocyclyl and m is 0 to 3 and the aryl or heterocyclyl ring is optionally substituted.
46. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R_2 is -COR_3 and R_3 is aryl or heterocyclyl and is optionally substituted.

47. The compound as defined in claim 45 or 46, the salt or pharmaceutically acceptable derivative thereof, wherein R_3 is optionally substituted phenyl, naphthyl, furyl, thienyl, pyrrolyl, H-pyrrolyl, pyrrolinyl, pyrrolidinyl, oxazolyl, oxadiazolyl, (including 1,2,3 and 1,2,4 oxadiazolyis) thiazolyl, isoxazolyl, furazanyl, isothiazolyl, pyrazolyl, pyrazolinyl, 5 pyrazolidinyl, imidazolyl, imidazolinyl, triazolyl (including 1,2,3 and 1,3,4 triazolyls), tetrazolyl, thiadiazolyl (including 1,2,3 and 1,3,4 thiadiazolyis), pyridyl, pyrimidinyl, pyridazinyl, pyranyl, pyrazinyl, piperidinyl, 1,4-dioxanyl, morpholinyl, 1,4-dithianyl, thiomorpholinyl, piperazinyl, 1,3,5-trithianyl, triazinyl, 1H thieno[2,3-c]pyrazolyl, thieno[2,3-b]furyl, indolyl, isoindolyl, benzofuranyl, benzothienyl, benzoxazolyl, 10 benzothiazolyl, benzisoxazolyl, benzisothiazolyl, benzimidazolyl, indazolyl, isoquinolinyl, quinolinyl, quinoxalyl, uridyl, purinyl, cinnolinyl, phthalazinyl, quinazolinyl, quinoxalyl, benzotriazinyl, naphthyridinyl or pteridinyl.

48. The compound as defined in claim 38, the salt or pharmaceutically acceptable 15 derivative thereof, wherein R_3 is optionally substituted with one or more substituents selected from C_{1-6} alkyl, C_{1-6} alkoxy, C_{2-6} alkenyl, C_{2-6} alkynyl, halo, halo- C_{1-6} alkyl (including CF_3), hydroxy, mercapto, nitro, cyano, NH_2 , mono or di(C_{1-6} alkyl) amino, phenyl, benzyl and heterocyclyl, the phenyl, benzyl and heterocyclyl groups being optionally substituted.

49. The compound as defined in claim 38, the salt or pharmaceutically acceptable 20 derivative thereof, wherein R_2 is $-CON(H)R_3$, and R_3 is $-(CH_2)_m$ aryl or $-(CH_2)_m$ heteroaryl and m is 0 to 2 and the aryl or heteroaryl ring is optionally substituted with one or more substituents independently selected from halo, lower alkyl, hydroxy, lower alkoxy 25 and phenyl.

50. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein z is 1 or 2.

30 51. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein -B-C- is a linker of the formula $-CH_2CH_2-$.

52. The compound as defined in claim 38, the salt or pharmaceutically acceptable 35 derivative thereof, wherein the linker -B-C- is optionally substituted no more than three optional substituents, the substituents selected from halo, lower alkyl, hydroxy, lower alkoxy, phenyl and benzyl.

53. The compound as defined in claim 38, the salt or pharmaceutically acceptable 40 derivative thereof, wherein the linker -B-C- is not substituted.

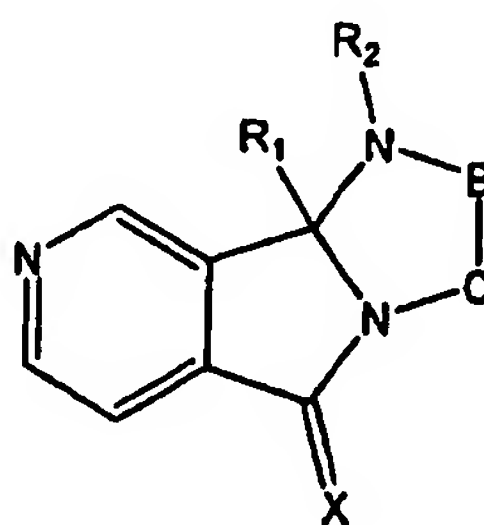
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54. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein X is oxygen or sulphur.
55. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein X is oxygen.
56. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₁ is an optionally substituted aryl or heterocyclyl group.
57. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₁ represents phenyl, thienyl, pyrrolyl, pyridyl ring or a -C₁₋₆ alkylphenyl group, the rings being optional substituted with halo, hydroxy, nitro, -NR'R'' (where R' and R'' are independently selected from hydrogen, lower alkyl and -C(O)R, where R is C₁₋₆ alkyl, phenyl or heterocyclyl), C₁₋₁₂alkyl, phenyl and -O-R_a, where R_a is -C₁₋₁₂alkyl, -C₃₋₇cycloalkyl, -C₁₋₁₂alkylC₃₋₇cycloalkyl, phenyl or -C₁₋₁₂alkylphenyl; and the C₁₋₁₂alkyl, phenyl or R_a group may be optionally substituted with halo, -CN, -NR'R'', -CO₂R or -CONR'R'', where R, R' and R'' are independently selected from hydrogen or lower alkyl.
58. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₁ is phenyl optionally substituted with a substituent selected from halo, -C₁₋₆alkyl, -C₁₋₆alkylhalo, -C₁₋₆alkylCN, -OC₁₋₆alkyl, -OC₁₋₆alkylhalo, -OC₁₋₆alkylCO₂NH₂, -OC₁₋₆alkylCN, -OC₁₋₆alkylC₃₋₇cycloalkyl, -OC₁₋₆alkylC₆H₅, -OC₁₋₆alkylOCH₃, -OC₆H₅, -OC₆H₄halo, -CF₃, -OCF₃, -NR'R'' (where R' and R'' are independently selected from hydrogen, -C(O)C₁₋₆alkyl, -C(O)C₆H₅, -C(O)CH=CHCO₂H, -C(O)C₁₋₆alkylCO₂H, -C(O)C₁₋₆alkylCO₂CH₃, -C(O)C₁₋₆alkylC₆H₅, -C(O)C₁₋₆alkylC₆H₄CH₃, -C(O)C₁₋₆alkylC₆H₄OCH₃ and -C(O)C₁₋₆alkylC₆H₄halo), -CO₂H, -CO₂C₁₋₆alkyl, -NO₂, -OH, -C₆H₅, -C₆H₄C₁₋₆alkyl, -C₆H₄halo and -OC(O)C₁₋₆alkyl.
59. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₁ is halo-phenyl.
60. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₁ is 4-chlorophenyl.
61. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivatives thereof, wherein A is an optionally substituted phenyl ring.

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62. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivatives thereof, wherein R_2 is $C(O)-R_3$ and R_3 is $-(CH_2)_m$ -aryl or $(CH_2)_m$ -heteroaryl, where m is 0 to 6, and the aryl or heteroaryl group is optionally substituted.

5 63. The compound as defined in claim 38 of the formula IV



Formula IV

10 wherein R_1 , R_2 , X and $-B-C-$ are as defined in claim 38, and the N-oxide form and pyridium salt thereof.

15 64. The compound as defined in claim 63, and the N-oxide form and pyridium salt thereof, wherein R_2 is $C(O)R_3$ and R_3 is $-(CH_2)_m$ -aryl or $(CH_2)_m$ -heteroaryl, where m is 0 to 6, and the aryl or heteroaryl group is optionally substituted.

65. A compound disclosed in table 2 or 3.

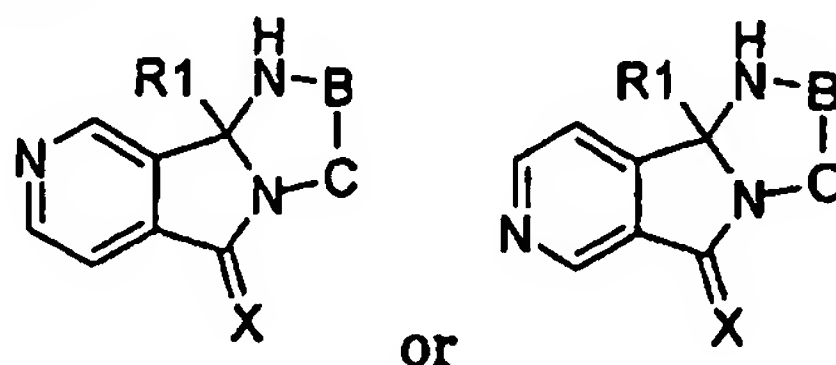
20 66. A pharmaceutical formulation for the treatment of infections involving viruses of *Pneumovirinae* sub-family comprising a compound of formula I as defined in any one of claims 38 to 65, the salt or pharmaceutically acceptable derivative thereof.

AP20 Rec'd PCT/PTO 23 JUN 2006

AMENDED CLAIMS

[received by the International Bureau on 10 May 2005 (10.05.05);
new claims 67-82 added; remaining claims unchanged (3 pages)]

67. A compound of formula



and salts thereof, wherein

5

the pyridyl ring is optionally substituted;

B-C is an optionally substituted linker of the formula $-\text{CH}_2-(\text{CH}_2)_z-$, where z is 1-4;

10 R_1 is selected from C_{1-12} alkyl, C_{2-12} alkenyl, C_{2-12} alkynyl, $-(\text{CH}_2)_n\text{C}_{3-7}$ cycloalkyl, $-(\text{CH}_2)_n\text{C}_{4-7}$ cycloalkenyl, $-(\text{CH}_2)_n$ aryl, $-(\text{CH}_2)_n$ aryl C_{1-12} alkyl, $-(\text{CH}_2)_n$ aryl C_{2-12} alkenyl, $-(\text{CH}_2)_n$ aryl C_{2-12} alkynyl, and $-(\text{CH}_2)_n$ heterocyclyl; n is 0-6 and the alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl groups are optionally substituted;

15 X is selected from O, S and NR_6 , where R_6 is independently selected from hydrogen, lower alkyl, hydroxy and lower alkoxy;

with the proviso that when -B-C- is $-\text{CH}_2\text{CH}(\text{CH}(\text{CH}_3)_2)-$, R_1 is not 3- CH_3 , 4- $\text{CH}_3\text{CH}_2\text{CH}_2\text{NHC}(\text{O})\text{CH}_2\text{O}$ -phenyl-.

20

68. The compound as defined in claims 67 and salts thereof, wherein the pyridyl ring is optionally substituted with one or more substituents independently selected from halo, $-\text{NH}_2$, $-\text{NO}_2$, C_{1-6} alkyl, aryl and heterocyclyl, the aryl and heterocyclyl groups optionally substituted with halo, C_{1-6} alkyl or halo substituted C_{1-6} alkyl, and the ring nitrogen of the
25 pyridyl ring may optionally be an N-oxide.

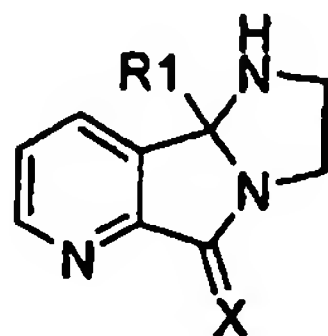
69. The compound as defined in claim 67 and salts thereof, wherein the pyridyl ring is optionally substituted with a substituent selected from halo, alkyl, C_6H_5- , $\text{CH}_3-\text{C}_6\text{H}_4-$, $\text{CF}_3-\text{C}_6\text{H}_4-$, pyridyl and NO_2 , and the ring nitrogen of the pyridyl ring may optionally be an N-
30 oxide.

70. The compound as defined claim 67 and salts thereof, wherein the pyridyl ring is not substituted.

35 71. The compound as defined in claim 67 and salts thereof, wherein the linker -B-C- is as defined in any one of claims 21 to 23.

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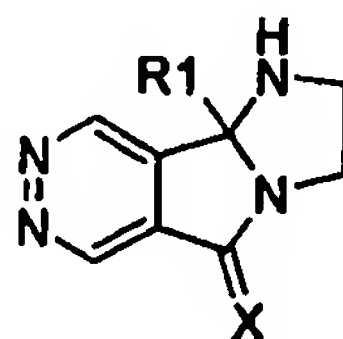
72. The compound as defined in claim 67 and salts thereof, wherein X is oxygen or sulphur.
- 5 73. The compound as defined in claim 67 and salts thereof, wherein X is oxygen.
74. The compound as defined in claim 67 and salts thereof, wherein R₁ is as defined in any one of claims 25 to 29.
- 10 75. A compound of formula



and salts thereof, wherein the pyridyl ring is optionally substituted and R₁ and X are as defined in Claim 67, with the proviso that R₁ is not 4-chlorophenyl.

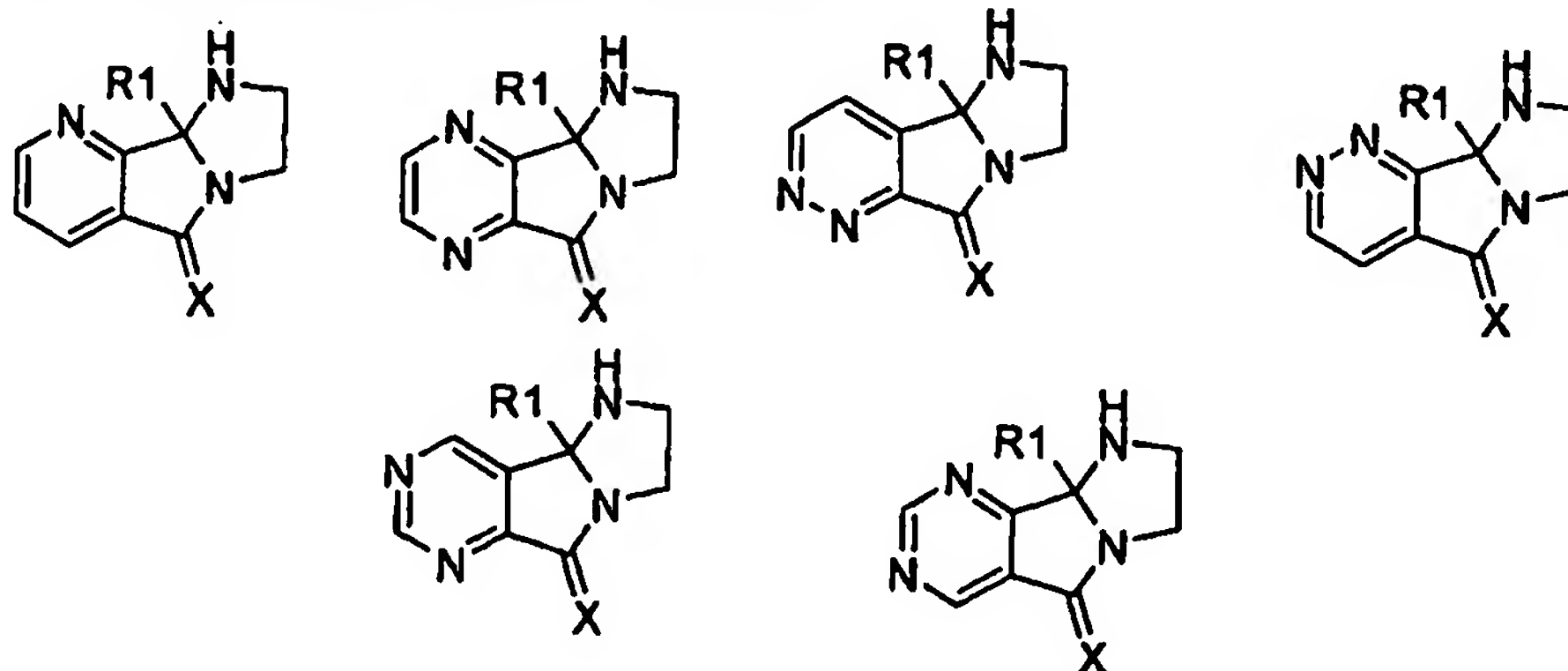
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76. A compound of the formula



- and salts thereof, wherein the fused pyridazinyl ring is optionally substituted and R₁ and X are as defined in Claim 67, with the proviso that R₁ is not phenyl, 4-chlorophenyl or 4-methoxyphenyl.
- 20

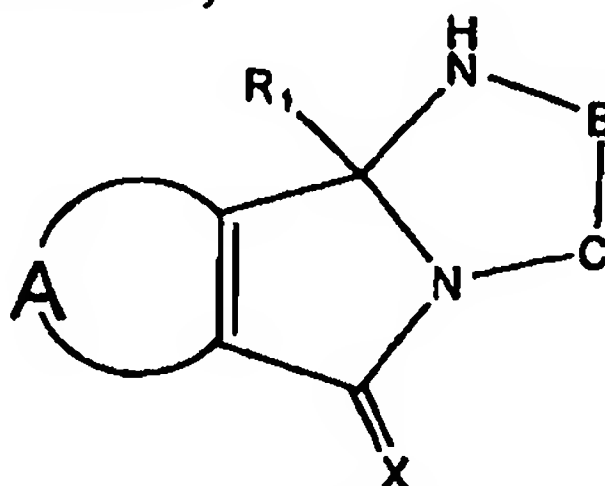
77. A compound of any one of the formula



25

and salts thereof, wherein the fused pyridyl, pyrazinyl, pyridazinyl or pyrimidinyl ring is optionally substituted and R_1 and X are as defined in Claim 67.

- 5 78. Use of a compound of formula III,



Formula III

and salts thereof, wherein R_1 , ring A, -B-C- and X are as defined in claim 38, as an intermediate for the production of a compound of formula I as defined in claim 38.

10

79. A method of separating the enantiomers of a compound of formula III by forming diastereomeric salts of the compounds using an enantiomerically enriched chiral hydrogen phosphate.

15

80. A method of separating the enantiomers of a compound as defined in claim 67 by forming diastereomeric salts of the compound using an enantiomerically enriched chiral hydrogen phosphate.

20

81. The compound as defined in claim 38 in a substantially pure optically active form.

82. The compound as defined in claim 67, 75, 76 or 77 in a substantially pure optically active form.